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REMARKS

Claims 1-20 are in the case and stand rejected under 35 USC § 103 over USPN 5,107,275 to Tsuruoka et al. in view of USPN 6,915,172 to Parent et al. Claims 1, 8, and 15 have been amended. No new matter has been introduced by the amendments, which are supported by the disclosure of the original specification, such as in paragraphs [0020] and [0021] and elsewhere. Reconsideration and allowance of the claims are respectfully requested.

CLAIM REJECTIONS UNDER §103

Claims 1-20 are rejected Tsuruoka et al. in view of Parent et al. Independent claim 1 claims, *inter alia*, a method for limiting exposure of a substrate to potentially damaging radiation by compiling a database of information associated with the substrate, where the information is in regard to a susceptibility of the substrate to the potentially damaging radiation *as determined from conditions of the substrate prior to processing* on the radiating apparatus, *identifying the substrate prior to processing* the substrate on the radiating apparatus, accessing the database of information associated with the substrate, based on the substrate identification, and *selectively modifying operation of the radiating apparatus* in regard to the potentially damaging radiation delivered to the substrate *based at least in part on the information associated with the substrate* so as to not damage the substrate with the potentially damaging radiation.

Tsuruoka et al. do not describe such a process. Tsuruoka et al. describe monitoring a wafer exposure system to ensure that the proper amount of energy is delivered by the exposure system. As the examiner points out, Tsuruoka et al. do not describe identifying the substrate prior to processing and using information in regard to the substrate to modify the operation of the exposure system.

Parent et al. do not compensate for the deficiencies of Tsuruoka et al. Parent et al. describe loading an initial set up for a machine (the system model), running the machine, monitoring an output variable of the product as produced by the machine, and modifying the operation of the machine (the system model) based on a comparison of the output variable to a specified value range that is desired for the output variable. This is a classic

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feedback control system, where the operation of a machine is altered based on the characteristics of the products that it produces.

By contrast, the present invention as claimed is a unique feed-forward system. For the feed-forward system to work, (1) the information that is specific to each substrate has to be gathered. This is different from developing a general model, as described by Parent et al., where the condition of the product prior to processing is immaterial, and only the condition of the product after processing is investigated. (2) Each substrate processed on the apparatus of the present invention needs to be identified, whereas in Parent et al., no identification of the input pieces is described or required. This is because the present invention modifies the operation of the apparatus for each substrate, based on the existing conditions of that substrate. Parent et al. modify the operation of the machine based on the output of all the substrates, and do not make any modifications based on the input conditions of a given substrate. (3) The information for each substrate in the present invention is determined from conditions of the substrate prior to processing. In Parent et al., the information that is gathered from the product is based on the output of the machine, which is created by the processing.

Thus, the combination of Tsuruoka et al. and Parent et al. produce a method that is very different from the method as claimed in claim 1. Therefore, claim 1 patentably defines over the combination of Tsuruoka et al. and Parent et al. Reconsideration and allowance of claim 1 are respectfully requested. Dependent claims 2-7 depend from independent claim 1, and contain additional important aspects of the invention. Therefore, dependent claims 2-7 patentably define over Tsuruoka et al. in view of Parent et al. Reconsideration and allowance of dependent claims 2-7 are respectfully requested.

Independent claim 8 claims, *inter alia*, a radiating apparatus for processing a substrate, including a first input adapted to receive a *substrate identification prior to processing the substrate*, a second input adapted to access a *database of information associated with the substrate*, based on the substrate identification, where the information is in regard to a susceptibility of the substrate to the potentially damaging radiation as determined from *conditions of the substrate prior to processing* on the radiating apparatus, and a processor adapted to *selectively modify operation* of the radiating apparatus based at least in part on the information associated with the substrate.

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Thus, claim 8 contains some of the same important limitations as described above in regard to claim 1, such as identifying a substrate prior to processing the substrate, gathering data on the substrate in regard to pre-processing conditions, rather than post processing conditions, and modifying processing of the substrate based on substrate-specific preprocessing conditions rather than on output-specific post processing conditions.

Thus, the combination of Tsuruoka et al. and Parent et al. produce a method that is very different from the method as claimed in claim 8. Therefore, claim 8 patentably defines over the combination of Tsuruoka et al. and Parent et al. Reconsideration and allowance of claim 8 are respectfully requested. Dependent claims 9-14 depend from independent claim 8, and contain additional important aspects of the invention. Therefore, dependent claims 9-14 patentably define over Tsuruoka et al. in view of Parent et al. Reconsideration and allowance of dependent claims 9-14 are respectfully requested.

Independent claim 15 claims, *inter alia*, a software routine stored on a storage device that is readable by a computing device, the software routine adapted to control operation of the computing device, the software routine having modules for *receiving a substrate identification*, accessing a *database of information* associated with the substrate, *based on the substrate identification*, where the information is determined from *conditions of the substrate prior to processing* with a radiating apparatus, receiving information associated with the radiating apparatus, and presenting information useful to *selectively modify operation of the radiating apparatus* based at least in part on the information associated with the substrate, so as to limit potential damage to the substrate by the radiating apparatus.

Thus, claim 15 contains some of the same important limitations as described above in regard to claims 1 and 8, such as identifying a substrate prior to processing the substrate, gathering data on the substrate in regard to pre-processing conditions, rather than post processing conditions, and modifying processing of the substrate based on substrate-specific preprocessing conditions rather than on output-specific post processing conditions.

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Thus, the combination of Tsuruoka et al. and Parent et al. produce a method that is very different from the method as claimed in claim 15. Therefore, claim 15 patentably defines over the combination of Tsuruoka et al. and Parent et al. Reconsideration and allowance of claim 15 are respectfully requested. Dependent claims 16-20 depend from independent claim 15, and contain additional important aspects of the invention. Therefore, dependent claims 16-20 patentably define over Tsuruoka et al. in view of Parent et al. Reconsideration and allowance of dependent claims 16-20 are respectfully requested.

CONCLUSION

Applicant asserts that the claims of the present application patentably define over the prior art made of record and not relied upon for the same reasons as given above. Applicant respectfully submits that a full and complete response to the office action is provided herein, and that the application is now fully in condition for allowance. Action in accordance therewith is respectfully requested.

In the event this response is not timely filed, applicant hereby petitions for the appropriate extension of time and requests that the fee for the extension be charged to deposit account 12-2355. If other fees are required by this amendment, such as fees for additional claims, such fees may be charged to deposit account 12-2252.

Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By: 

Rick Barnes, 39,596

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